

IN THE CLAIMS

Claim 1 (Currently Amended): A method for introducing a gene into a plant, which comprises:

(A) introducing a gene into a plant cell using a vector comprising ~~an adventitious shoot redifferentiation~~ a cytokinin-related gene as a selectable marker gene under the control of a light-inducible promoter, and

(B) culturing said plant cell into a tissue and selecting a transgenic tissue expressing said ~~an adventitious shoot redifferentiation~~ a cytokinin-related, and

(C) regenerating a plant from said transgenic tissue.

Claim 2 (Currently Amended): The method according to Claim 1, wherein said transgenic tissue is selected using, as an index, morphology of an adventitious shoot redifferentiated by expression of the ~~an adventitious shoot redifferentiation~~ a cytokinin-related gene which has been introduced into the plant cell.

Claim 3 (Previously Presented): The method according to Claim 1, wherein the light-inducible promoter is a promoter of a ribulose 2-phosphate carboxylase small subunit gene.

Claim 4 (Currently Amended): The method according to Claim 1, wherein ~~the adventitious shoot redifferentiation gene is a~~ said cytokinin-related gene is a β -glucuronidase gene.

Claim 5 (Previously Presented): The method according to Claim 4, wherein the cytokinin-related gene is a CKI1 gene.

Claim 6 (Previously Presented): A vector for introducing a gene into a plant, comprising a desired gene, ~~an adventitious shoot redifferentiation~~ a cytokinin-related gene as a selectable marker gene under the control of a light-inducible promoter, and a removable DNA element, wherein the selectable marker gene is positioned such that it behaves integrally with the removable DNA element, and wherein the desired gene is positioned such that it does not behave integrally with the removable DNA element.

Claim 7 (Previously Presented): The vector according to Claim 6, wherein the selectable marker gene is present within the removable DNA element.

Claim 8 (Previously Presented): The vector according to Claim 6, wherein the light-inducible promoter is a promoter of a ribulose 2-phosphate carboxylase small subunit gene.

Claim 9 (Previously Presented): The vector according to Claim 6, wherein the ~~adventitious shoot redifferentiation gene~~ is a cytokinin-related gene is a β -glucuronidase gene.

Claim 10 (Previously Presented): The vector according to Claim 9, wherein the cytokinin-related gene is a CKI1 gene.

Claim 11 (Previously Presented): The vector according to Claim 6, wherein the removable DNA element is derived from a site-specific recombination system.

Claim 12 (Previously Presented): A plant cell to which the vector of Claim 6 has been introduced.

Claim 13 (Previously Presented): A transgenic plant regenerated from the plant cell of Claim 12.

Claim 14 (Previously Presented): A plant cell into which the vector of Claim 6 has been introduced, wherein said vector has lost the removable DNA element and the selectable marker gene.

Claim 15 (Previously Presented): A transgenic plant regenerated from the plant cell of Claim 14.

Claim 16 (Previously Presented): A method for introducing a desired gene into a plant comprising:

- (A) introducing the vector of Claim 6 into a plant cell,
- (B) culturing said plant cell into a tissue under conditions suitable for detecting morphologically abnormal plant tissue,
- (C) selecting at least one cell of said morphologically abnormal plant tissue comprising the desired gene and
- (D) regenerating a plant from said cell.

Claim 17 (Previously Presented): A transgenic plant produced by the method of Claim 16.

Claim 18 (Previously Presented): A method for introducing a desired gene into a plant comprising:

- (A) introducing the vector of Claim 6 into a plant cell,
- (B) culturing said plant cell into a tissue under conditions suitable for detecting morphologically abnormal plant tissue,
- (C) selecting at least one cell of said morphologically abnormal plant tissue comprising the desired gene,
- (D) culturing at least one cell of said morphologically abnormal plant tissue into a tissue under conditions suitable for detection of normal plant tissue,
- (E) selecting at least one cell of said morphologically normal plant tissue comprising the desired gene and
- (F) regenerating a plant from said cell.

Claim 19 (Previously Presented): A transgenic plant produced by the method of Claim 18.

Claim 20 (Previously Presented): A method for producing a transgenic plant free from the influence of a selectable marker gene, comprising:

- (A) introducing the vector of Claim 6 into a plant cell,
- (B) culturing said plant cell into a tissue under conditions suitable for detecting morphologically abnormal plant tissue,
- (C) selecting at least one cell of a said morphologically abnormal plant tissue and culturing it into a tissue under conditions suitable for detecting morphologically normal plant tissue,

(D) selecting at least one cell of said morphologically normal plant tissue, and
(E) growing at least one cell of said morphologically normal plant tissue into a transgenic plant.

Claim 21 (Previously Presented): A transgenic plant produced by the method of Claim 19.

Claim 22 (Currently Amended): A method for improving redifferentiation efficiency of a transgenic tissue, which comprises introducing a gene into a plant cell using a vector comprising ~~an adventitious shoot redifferentiation~~ a cytokinin-related gene as a selectable marker gene under the control of a light-inducible promoter.

Claim 23 (Currently Amended): The method according to Claim 21, wherein said transgenic tissue is selected using, as an index, morphology of an adventitious shoot redifferentiated by expression of the ~~adventitious shoot redifferentiation~~ cytokinin-related gene which has been introduced into the plant cell.

Claim 24 (Previously Presented): The method according to Claim 21, wherein the light-inducible promoter is a promoter of a ribulose 2-phosphate carboxylase small subunit gene.

Claim 25 (Currently Amended): The method according to Claim 21, wherein the ~~adventitious shoot redifferentiation gene is a~~ cytokinin-related gene is a β -glucuronidase gene.

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Claim 26 (Previously Presented): The method according to Claim 25, wherein the cytokinin-related gene is a CK11 gene.